A1 | C1 | A2 | C2 | A3 | C3 | A4 | C4 | A5 | C5 | A6 | C6 | A7 | C7 | A8 | C8 | A9 | C9 | A10 | C10 | A11 | C11 | A12 | C12 | A13 | C13 | A14 | C14 | A15 | C15 | A16 | C16 OUTPUT OF PIPE1 & INPUT TO THE COMPRESSION BLOCK 40

FIG. 5

TIME —

OUTPUT FROM COMPRESSION BLOCK 40 ASSOCIATED WITH PIPE1

8

BLOCKS OF DATA SENT TO EXTERNAL MEMORY AFTER REMOVING THE INTERLEAVING:

BLOCK OF COMPRESSED 'A' DATA	a1' a2' a3' a4' a5' a6' a7' a8' ••	•
	TIME	
BLOCK OF COMPRESSED 'B' DATA	b1' b2' b3' b4' b5' b6' b7' b8' ••	•
	TIME	
BLOCK OF COMPRESSED 'C' DATA	C1' C2' C3' C4' C5' C6' C7' C8'	•
	TIME ->	
BLOCK OF COMPRESSED 'D' DATA	d1' d2' d3' d4' d5' d6' d7' d8' ••	•
	TIME ->	

FIG. 7

TWO INTERLEAVED COMPRESSED DATA BLOCKS READY FOR DECOMPRESSING a1' b1' a2' b2' a3' b3' a4' b4' a5' b5' a6' b6' a7' b7' a8' b8'

TIME →

FIG. 8

DECOMPRESSION OUTPUT WITH TWO RECOVERED BLOCKS OF DATA WHICH ARE STILL INTERLEAVED.

A6 | B6 | A7 | B7 | A8 | B8 | A9 | B9 | A10 | B10 | A11 | B11 | A12 | B12 | A13 | B13 | A14 | B14 | A15 | B15 | A16 | B16 A4 B4 A5 B5 88 B2 | A3 |

EG. 9

B16

815

B14

B13

A16

A15

A14

A13

DISPLAYED ORDER OF PIXELS AFTER FURTHER PROCESSING IN THE DISPLAY BLOCK. **B**12 88 84 <u>B</u> 83 87 B10 **B**2 **B**6 83 **B**5 **₩** A12 **A**4 **A8** A11 **A**3 A7 A10 K **A6 A**5 **A**9 ¥ ROW (n+1) ROW (n+2) ROW (n+3) ROW (n)

FIG. 10

OUTPUT OF PIPE1 & INPUT TO FILTER 36

C3 | A4 | C4 | A5 | C5 | A6 | C6 | A7 | C7 | A8 | C8 | A9 | C9 | A10 | C10 | A11 | C11 | A12 | C12 | A13 | C13 | A14 | C14 | A15 | C15 | A16 | C16

C2 A3

NEXT LINE

OUTPUT FROM FILTER 36 & INPUT TO REORDERING UNIT 43

X 36* C6* X 25* C5* 9/21

X a4* C4* X x x a1 c1 x x a2 c2 x x a3 c3 x

THE FILTER IN THE H/2 MODE AVERAGES TWO ADJACENT PIXELS ($(A1+A2)/2 = a1^*/(C1 + C2)/2 = c1^*/(A3 + A4)/2 = a2^*$)

FIG. 12

OUTPUT FROM PIPE2 & INPUT TO FILTER 38

South grad the World II. In World II. I

OUTPUT FROM FILTER 38 & INPUT TO REORDERING UNIT 43

x .90 .90 x

× b6* d6*

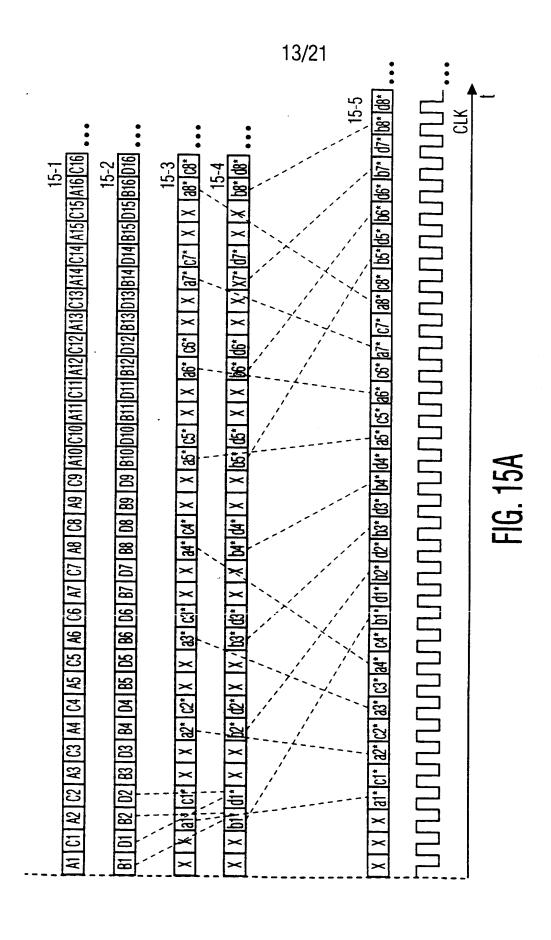
b4* | d4*

TIME |

PIXEL OUTPUT AFTER DECIMATION AND RE-ORDERING (COMPRESSOR INPUT)

a1* c1* a2* c2* a3* c3* a4* c4* b1* d1* b2* d2* b3* d3* b4* d4* a5* c5* a6* c6* a7* c7* a8* c8* b5* d5* b6* d6* b7* d7*

TIME |



OUTPUT FROM COMPRESSION BLOCK 40 ASSOCIATED WITH PIPE1

13' X X 1114' 114' 115' X X

.9u ,9u

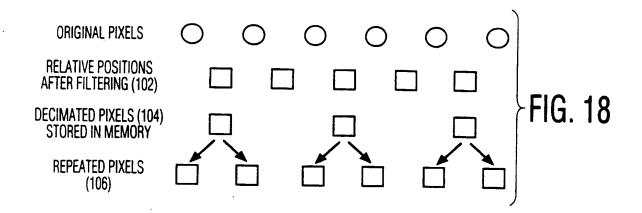
COMPRESSED DATA SENT TO THE EXTERNAL MEMORY

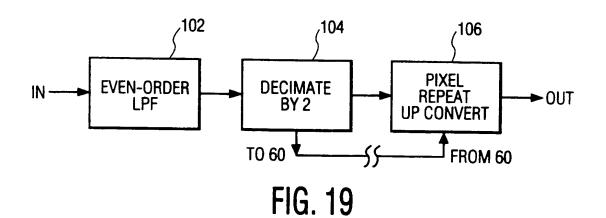
BLOCKS FROM A AND B

m1' m2' m3' m4' m5' m6' m7' m8'

BLOCKS FROM C AND D

n1' n2' n3' n4' n5' n6' n7' n8'





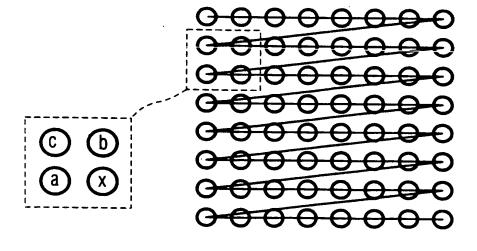


FIG. 22

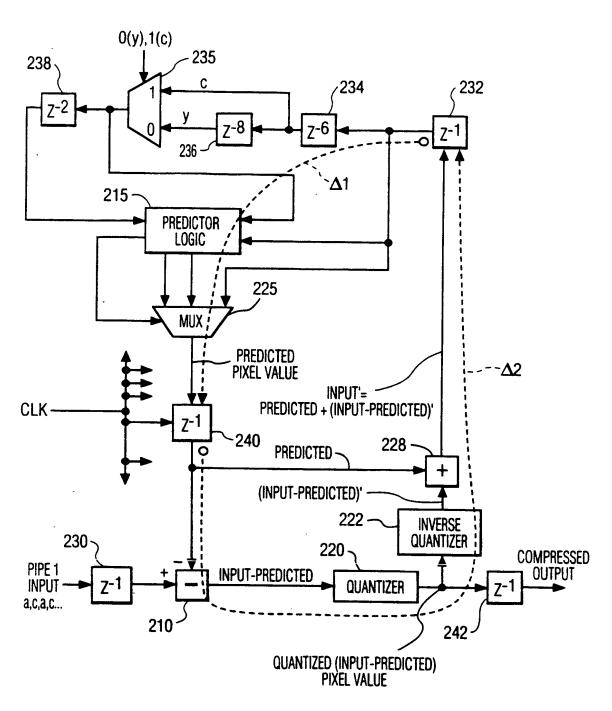


FIG. 20

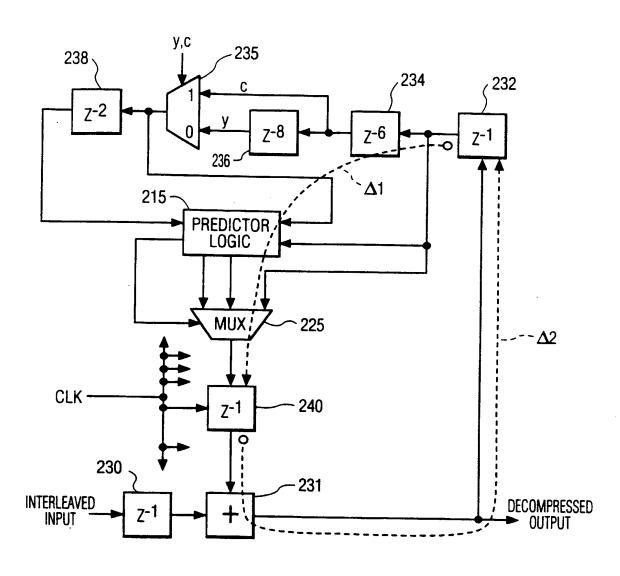
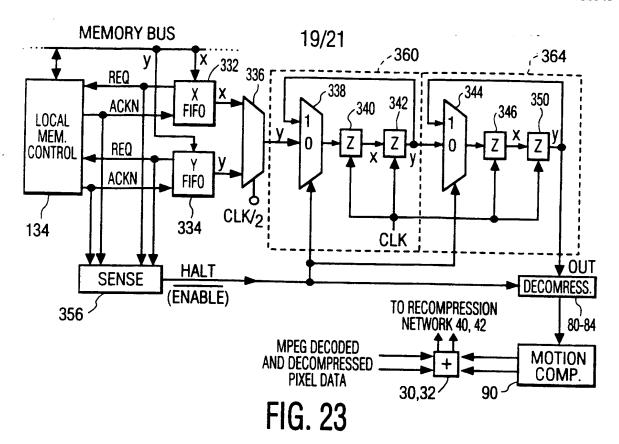


FIG. 21



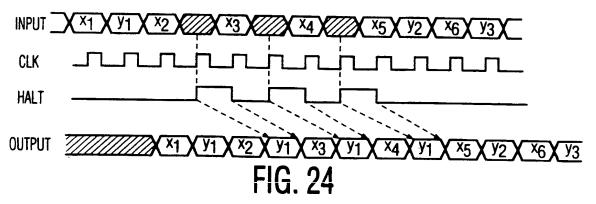


FIG. 25 IN
$$\longrightarrow$$
 Z^{-1} \longrightarrow OUT=IN (Z^{-2})

CLOCK	UNIT 230 INPUT	UN	UNIT 232		UNIT 240	
CYCLE	PIXELS	INPUT	<u>OUTPUT</u>	<u>INPUT</u>	<u>OUTPUT</u>	OUTPUT <u>Pixels</u>
1	$a_1 - \frac{1}{a_1}$	→ a ₁ ' _	2 —	-		
2	$c_1 - \frac{2}{1}$	→ C1'	$a_{1'} - \frac{2}{3}$	$\rightarrow a_{1}$	_	
3	a_2	a _{2'}	c _{1'} -3	→c _{1'} 4		3 • a _{1"}
4	c_2	c _{2'}	a _{2'}	a _{2'}	C1'	C ₁ "
5	a ₃	a3,	C2'	C2'	a _{2'}	a _{2*}
•	COMPR	ESS •	PREDI	CT :	COMI	PRESS
14141						
1 2 3	4					

FIG. 27

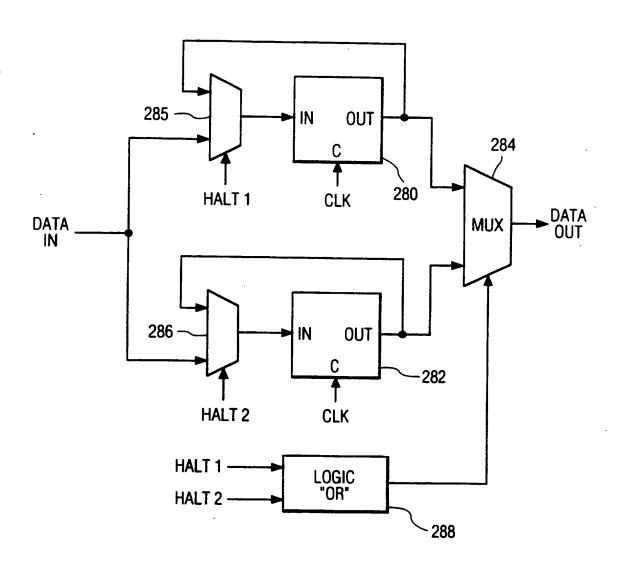


FIG. 28